REMARKS

Reconsideration of the application is requested in view of the above amendments and the following remarks. Claims 1, 2, 5, 6 and 9-15 have been amended. The amendments to claim 2 are supported by claim 9. Support for the amendments to claim 9 can be found in the description of Figure 4 at page 8, line 11 to page 9, line 11 of the present specification. Changes made to the application by the current amendment are shown in attached "Version with Markings to Show Changes Made."

Claims 5-6 and 9-15 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. These claims have been amended and are now definite. Withdrawal of the rejection is respectfully requested.

The title of the application has been amended as suggested by the Examiner.

Claims 1-6, 8-10 and 12-15 were rejection under 35 U.S.C. § 102(b) as being anticipated by Ando et al., U.S. 4,142,131. Applicant respectfully traverses this rejection.

Ando is directed to a color picture tube that differentiates deflection magnetic fields affecting electron beams on both sides from a deflection magnetic field affecting an electron beam centered between the side beams. Furthermore, the object and purpose of the invention disclosed by Ando is unrelated to the claimed invention. Ando discloses with respect to Figure 9 that each horizontal deflection magnetic field is absorbed by an upper plate 167, emitted to a space in which a side beam outlet 11 or 13 is located, and then absorbed by a lower plate 167. This configuration tends to intensify the horizontal deflection magnetic fields affecting the side beams. However, the central beam is spaced apart from the plates 167, and therefore, the horizontal magnetic field affecting this central beam remains unchanged (column 6, lines 51-58).

The magnetic field controlling elements 200 to 203 disclosed by Ando each include the plate 167 and are disposed symmetrically with respect to the side beam outlets 11 and 13 (column 6, lines 35-40). The magnetic field controlling elements 200 to 203 do not differentiate cross-sectional shapes of right and left side beams from each other. Thus, the magnetic field controlling elements 200 to 203 intensify the horizontal magnetic field in exactly the same way with respect to both the right and left side beams.

Because Ando discloses equal treatment of the right and left side beams, Ando fails to disclose "varying cross-sectional shapes of the side beams so that the cross-sectional shape of

one of the side beams is horizontally or vertically elongated to a higher degree than that to which the cross-sectional shape of the other of the side beams is," as required by claims 1 and 2. Furthermore, Ando fails to disclose bodies or members that are "in locations shifted inward from planes passing through central axes of the side beams," as required by claims 2 and 9. Therefore, Ando fails to disclose every limitation of independent claims 1, 2 and 9, and the claims that depend from them. Withdrawal of the rejection is respectfully requested.

Further to the above, with regard to claim 5, Ando discloses magnetic field controlling elements 200 to 203 that are not placed in planes parallel to a direction in which the three electron beams travel, but in planes perpendicular thereto. With regard to claims 6 and 10, the magnetic field controlling elements 200 to 203 disclosed by Ando do not have a "bent" structure and sees the plates 167 and 168 are combined. Concerning claims 8 and 12, the magnetic field controlling elements 204 and 205 disclosed by Ando, which sandwich the central beam (see Figure 12), produce an effect opposite to that of the magnetic field controlling elements 200 to 203 disclosed in Figure 9. Thus, the magnetic field controlling elements 200 to 203 of Figure 9 and the magnetic field controlling elements 204 and 205 of Figure 12 cannot be used together. In contrast, claims 8 and 12 require using a "further" pair of members for generating a magnetic field for the center beam in addition to the two pairs of members for generating a magnetic field for the side beams.

Claims 1-7, 9-11 and 13-15 were rejected under 35 U.S.C. § 102(e) as being anticipated by Ueda, U.S. 6,194,824. Applicant respectfully traverses this rejection.

Ueda discloses a configuration, as shown in Figure 4, wherein each of the side beams is surrounded by four magnetic field generating faces, thus causing a four-pole magnetic field to act on the beam located substantially at the center of these faces. However, Ueda fails to disclose the "bipolar barrel magnetic field," required by claims 1, 2 and 9. Therefore, Ueda fails to disclose every limitation of claims 1, 2 and 9, and the claims that depend from them. Withdrawal of the rejection is respectfully requested.

Further to the above, concerning claims 6 and 10, although Ueda may include "planes parallel to the in-line direction," these planes do not serve as a principal plane for generating a magnetic field (see Figure 4). Concerning claim 7 and 11, the members for generating magnetic field disclosed by Ueda are not "for substantially V-shaped magnetic pieces." Members 23 and

24 have a substantially U-shape, and members 25 and 26 are not considered to have a V-shape either.

In view of the above, Applicant requests reconsideration of the application in the form of a Notice of Allowance.

Respectfully submitted,

MERCHANT & GOULD P.C.
P.O. Box 2903
Minneapolis, Minnesota 55402-0903
(612) 332-5300

Date: December 4, 2002

Douglas P. Mueller
Reg. No. 30,300
DPM:JNR:PSTkaw

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification

Title at page 1, line 1 of the specification has been amended as follows:

COLOR CATHODE-RAY TUBE WITH MEMBERS GENERATING MAGNETIC FIELDS AND COLOR CATHODE-RAY TUBE APPARATUS

In the Claims

Claims 1, 2, 5, 6 and 9-15 have been amended as follows:

1. (Once Amended) A color cathode-ray tube comprising an in-line electron gun, and

means for passing [wherein] side beams of three electron beams [pass] through localized bipolar barrel magnetic fields formed[,] in a direction substantially perpendicular to an in-line plane[,] corresponding to the side beams, respectively, and varying cross-sectional shapes of the side beams [are varied] so that the cross-sectional shape of one of the side beams is horizontally or vertically elongated to a higher degree than that to which the cross-sectional shape of the other of the side beams is.

2. (Once Amended) A color cathode-ray tube comprising an in-line electron gun,

wherein at an end, on a screen side, of the electron gun, two pairs of members for generating a magnetic field are placed above and below side beams of three electron beams so as to sandwich them, respectively, in locations shifted inward from planes passing through central axes of the side beams, and

between each of the two pairs of members for generating a magnetic field, a localized bipolar barrel magnetic field is formed to vary cross-sectional shapes of the side beams so that the cross-sectional shape of one of the side beams is horizontally or vertically elongated to a higher degree than that to which the cross-sectional shape of the other of the side beams is.

5. (Once Amended) The color cathode-ray tube according to claim 2, wherein the two pairs of members for generating a magnetic field have plate[-like] magnetic bodies placed in

planes perpendicular to an in-line direction and parallel to a direction in which the three electron beams travel, and

the plate[-like] magnetic bodies are positioned in locations shifted inward from planes passing through central axes of the side beams.

6. (Once Amended) The color cathode-ray tube according to claim 5, wherein ends, on a side of the electron beams, of the plate[-like] magnetic bodies are bent and planes parallel to the in-line direction are formed.

9. (Once Amended) A color cathode-ray tube comprising an in-line electron gun,

wherein at an end, on a screen side, of the in-line electron gun, two pairs of plate[-like] members are placed above and below side beams of three electron beams so as to sandwich them, respectively,

the two pairs of plate[-like] members have plate[-like] magnetic bodies placed in planes perpendicular to an in-line direction and parallel to a direction in which the three electron beams travel, [and]

the plate[-like] magnetic bodies are positioned in locations shifted inward from planes passing through central axes of the side beams, and

a bipolar barrel magnetic field is formed between the plate magnetic bodies.

10. (Once Amended) The color cathode-ray tube according to claim 9, wherein ends, on a side of the electron beams, of the plate[-like] magnetic bodies are bent and planes parallel to the in-line direction are formed.

11. (Once Amended) The color cathode-ray tube according to claim 9, wherein the two pairs of plate[-like] members are four substantially V-shaped magnetic pieces attached to an inner face of a cylindrical body.

12. (Once Amended) The color cathode-ray tube according to claim 9, wherein a further pair of plate[-like] members is placed above and below a center beam of the three

electron beams so as to sandwich it, and

the further pair of plate[-like] members has plate[-like] magnetic bodies placed in a plane that is perpendicular to the in-line direction and passes through a central axis of the center beam.

13. (Twice Amended) A color cathode-ray tube apparatus comprising:

a color cathode-ray tube according to claim 1; and

a deflection yoke for generating a pincushion[-type] horizontal deflection magnetic field and a barrel[-type] vertical deflection magnetic field.

14. (Once Amended) A color cathode-ray tube apparatus comprising:

a color cathode-ray tube according to claim 2; and

a deflection yoke for generating a pincushion[-type] horizontal deflection magnetic field and a barrel[-type] deflection magnetic field.

15. (Once Amended) A color cathode-ray tube apparatus comprising:

a color cathode-ray tube according to claim 9; and

a deflection yoke for generating a pincushion[-type] horizontal deflection magnetic field and a barrel[-type] deflection magnetic field.